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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,390	07/09/2003	Harold N. Trick	KSURF-08151	9787
23535 7590 04/06/2007 MEDLEN & CARROLL, LLP 101 HOWARD STREET SUITE 350 SAN FRANCISCO, CA 94105			EXAMINER IBRAHIM, MEDINA AHMED	
			ART UNIT	PAPER NUMBER
			1638	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/06/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/616,390

Applicant(s)

TRICK ET AL.

Examiner

Medina A. Ibrahim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 1/20/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 9, 15-20, 23, 26-36, 38, 40 and 42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 9, 15-20, 23, 26-36, 38, 40 and 42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Applicant's response filed 12/26/06 in reply to the Office action of 06/21/06 has been entered. Claims 1, 9, 15-17, 20, 23, 26, 31-36, 38 and 42 are amended. Claims 2-6, 10-13, 25, and 39 are cancelled. Therefore, claims 1, 7-9, 14-23, 26-38, and 40-41 are pending.

This application contains claims 7-8, 14, 21-22, 37, and 41, drawn to an invention nonelected with traverse in the response of 03/27/06. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144). See MPEP § 821.01.

Claims 1, 9, 15-20, 23, 26-36, 38, 40, and 42 are under examination.

All previous objections and rejections not set forth below have been withdrawn in view of Applicant's amendment.

### ***Claim Rejections - 35 USC § 112***

Claims 1, 9, 15-20, 23, 26-36, 38, 40, and 42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This rejection is repeated for the reasons of record as set forth in the last Office action of 06/21/06.

Applicant's arguments filed 12/26/06 have been fully considered but are not deemed persuasive.

Applicant asserts that the instant claims are adequately described in the specification as specific examples of nucleic acids encoding dsRNA nematode sequences having nematocidal activity are provided in the specification. Applicant refers to Table 2 of the specification. Applicant argues that the nucleic acids encoding dsRNA for nematocidal activity for the production of nematode resistant transgenic plants are further distinguished as embryonic lethal type, slow growth type, larval death type, sterile type, maternal lethal type, etc. Applicant also argues that the applicant's refer specific nucleic acids described in the specification and was known in the prior art as of the filing date of the instant specification. Applicant, therefore, requests that the rejection be withdrawn (response, pp. 12-13).

These are not found persuasive because Applicant's arguments are not commensurate with the scope of the claims. Table 2 of the specification describes a number of nucleic acid sequences from nematodes, however, the function of said nucleic acids in plant nematode infection/parasitism and their ability to form dsRNA upon expression in transgenic plant are unknown. In addition, the characteristics of the nucleic acids as, for example, embryonic lethal type, slow growth, larval death type, molting defect type, paralyzed type, protruding vulva type, sterile type, uncoordinated type, and maternal lethal type, are functional properties rather than structural identifying characteristics. In addition, while all the nucleic acids of Table 2 were known in the prior art, neither the specification nor the prior art describes structural domains/sequences

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common to the nucleic acids of Table 2 that are required for the embryonic lethal phenotype upon expression in a transgenic plant.

The MPEP 2163 states "(T)o satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. See, e.g., *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319, 66 USPQ2d 1429, 1438 (Fed. Cir. 2003); *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d at 1563, 19 USPQ2d at 1116." One must define a compound by "whatever characteristics sufficiently distinguish it" (*Amgen, Inc. v. Chugai Pharmaceutical*, 927 F.2d 1200, 1206, 18 USPQ2d 1016, 1021 (Fed. Cir. 1991)).

Therefore, for all the reasons above and in the last Office action, the specification fails to sufficiently describe the claimed invention in such full, clear, concise, and exact terms that a skilled artisan would recognize that Applicant was in possession of the invention as broadly claimed at the time of filing

***Claim Rejections - 35 USC § 102***

Claims 1, 9, 15-20, 23, 26-36, 38, 40, and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Tobias et al (WO 01/37654). This rejection is repeated for the reasons of record as set forth in the last Office action of 06/21/06. Applicant's arguments filed 12/26/06 have been fully considered but are not deemed persuasive.

Applicant asserts that the claims are amended to recite that the dsRNA is for genetic inhibition of a nematode embryonic lethal phenotype gene, and that Tobias et al do not teach, suggest or describe a transgenic plant comprising dsRNA that targets a nematode embryonic lethal phenotype gene. Applicant, therefore, requests the rejection be withdrawn (response, p.15).

This is not found persuasive because the dsRNA used by Tobias does effect nematode development and reproduction. Tobias et al specifically teaches transgenic plants expressing a dsRNA for *M. incognita* unc-17 encoding vesicular acetylcholine

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transporter; if this gene is absent or mutated, proper development of the nematode is stopped. On page 6, lines 29-32, Tobias teaches that the uptake of the dsRNA by the parasitic nematode induces silencing of genes important for nematode growth, survival, or reproduction, thereby preventing nematode damage to the plant. On pages 8-9, it states suitable nematode target genes include cell cycle genes and embryo lethal mutants (see paragraph bridging pages 8 and 9). Since the claims do recite distinguishing identifying characteristics for the dsRNA that targets embryonic lethal gene, Tobias et al anticipate the claimed invention.

Claims 1, 9, 15-20, 23, 26-36, 38, 40, and 42 are rejected under 35 U.S.C. 102(a) as being anticipated by MUSHEGIAN et al (WO 01/96584). This rejection is repeated for the reasons of record as set forth in the last Office action of 06/21/06. Applicant's arguments filed 12/26/06 have been fully considered but are not deemed persuasive.

Applicant asserts that the claims are amended to recite that the dsRNA is for genetic inhibition of a nematode embryonic lethal phenotype gene, and that MUSHEGIAN et al do not teach, suggest or describe a transgenic plant comprising dsRNA that targets a nematode embryonic lethal phenotype gene. Applicant, therefore, requests the rejection be withdrawn (response, p.15).

This is not found persuasive. On page 4, the last full paragraph, MUSHEGIAN et al teach that the dsRNA molecules are for inhibiting genes useful for nematode growth, development, parasitism or reproduction (see also genes/proteins listed in Appendix I

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on pages 54 to 58). Since the claims do recite distinguishing identifying characteristics for the dsRNA that targets embryonic lethal gene, MUSHEGIAN et al anticipate the claimed invention.

***Remarks***

No claim is allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Medina A. Ibrahim whose telephone number is (571) 272-0797. The Examiner can normally be reached Monday -Thursday from 8:00AM to 5:30PM and every other Friday from 9:00AM to 5:00 PM. Before and after final responses should be directed to fax nos. (703) 872-9306 and (703) 872-9307, respectively.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

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supervisor, Anne Marie Grunberg, can be reached at (571) 272-0795.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

3/31/07

Mai

MEDINA A. IBRAHIM  
PRIMARY EXAMINER

*Medina A. Ibrahim*